Small Business Innovation Research/Small Business Tech Transfer

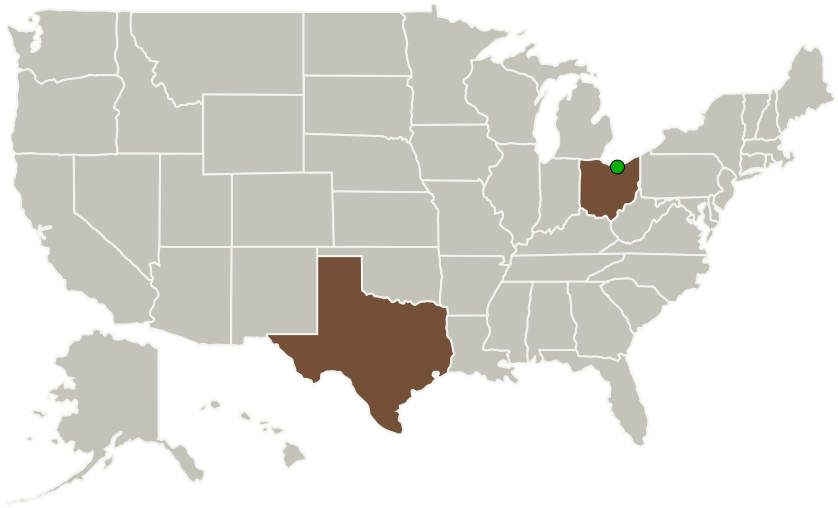
Engineered Materials for Advanced Gas Turbine Engine, Phase I

Completed Technology Project (2011 - 2011)

Project Introduction

This project will develop innovative composite powders and composites that will surpass the properties of currently identified materials for advanced gas turbine engine applications. Phase I will demonstrate a powder metallurgy technique for fabricating high-temperature, oxidation-resistant composite powders. Once consolidated, the resulting composite will possess high creep and thermal fatigue strength, and a low coefficient of thermal expansion properties.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Advanced Powder Solutions	Lead Organization	Industry	Cypress, Texas
Glenn Research Center(GRC)	Supporting Organization	NASA Center	Cleveland, Ohio

Primary U.S. Work Locations	
Ohio	Texas

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Project Transitions

February 2011: Project Start

September 2011: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/138133)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Advanced Powder Solutions

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

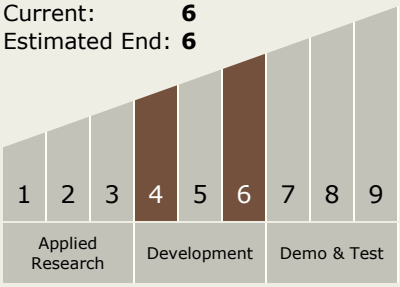
Carlos Torrez

Principal Investigator:

Asit Biswas

Technology Maturity (TRL)

Start: **4**
Current: **6**
Estimated End: **6**



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Completed Technology Project (2011 - 2011)

Technology Areas

Primary:

- TX12 Materials, Structures, Mechanical Systems, and Manufacturing
  - TX12.1 Materials
    - TX12.1.6 Materials for Electrical Power Generation, Energy Storage, Power Distribution and Electrical Machines

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System